UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/727,135 | 12/02/2003 | Mark Allen Freskos | 50325-0845 (Seq. No. 8504 | 5336 |

29989          7590          10/09/2008
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| EXAMINER |
|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 2443 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 10/09/2008 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _18 July 2008_.

2a)☒ This action is **FINAL**.  2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-20_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All  b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____ .

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _7/18, 9/15/2008_.

4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

# DETAILED ACTION

## *Response to Amendment*

1.    This application was filed 12/2/2003.    Claims **1 - 20** are pending.  Claims 1, 4 - 11,

14 - 16, 19, 20 have been amended.    Independent claims are **1, 4, 5, 6, 9, 10, 11, 14,**

**15, 16, 19, 20**.

2.      The 101 rejection has been withdrawn due to spec. modification.   .

3.      The 112 rejection has been withdrawn.

## *Responses to Remarks*

4.    Applicant's arguments filed 7/18/2008 have been fully considered and are moot due

to new grounds of rejection.

## *Claim Rejections - 35 USC § 103*

        The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

5.      Claims **1 - 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over

**Shafer et al.** (US Patent No. **7,072,946**) in view of **Swedor et al.** (US Patent No.

**7,313,608**) and further in view of **Pecina et al.** (US Patent No. 7,130,870).

**Regarding Claims 1, 6, 11, 16**, Shafer discloses a computer-implemented method,

machine readable <u>storage</u> medium, apparatus for processing XML requests on a router,

the method comprising the machine executed steps of:

receiving, at a client from a client application, a request that conforms to a table-based data model to perform an operation on management data maintained by the router; (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests or non-XML requests; clients can encode requests with XML tags; col 2, ll 21-34; col 3, ll 7-9; col 6, ll 24-27: software, implementation means, machine readable media)

receiving, at the router from the client, the XML request to perform the operation on the management data maintained in a database by the router; (Shafer col 1, ll 49-55; col 2, ll 10-13: management request received at router, XML formatted request)

parsing the XML request to identify one or more XML elements contained in the XML request; (Shafer col 2, ll 15-23: parse XML request)

generating one or more data requests based upon the one or more XML elements contained in the XML request; (Shafer col 2, ll 59-65: convert request to device command) and

processing the one or more data requests against the management data maintained in the database by the router.  (Shafer col 2, ll 5-9; col 2, ll 25-28: process request based on XML request)

storing updated management data at the router without implementing the updated management data,  (Shafer col 10, ll 29-34: uncommitted (unimplemented) changes stored and accessible; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, computer readable media)

wherein the one or more data requests comprise a request for a confirmation that

updated management data have been implemented by the router in response to

changes to the management data on the router. (Shafer col 11, ll 35-37:

configuration change command completion confirmation; col 2, ll 21-34; col 6, ll 24-

27: software, implementation means, computer readable media)

Shafer discloses a non-XML operation request and not XML aware. (Shafer col 2, ll

10-17: clients submit configuration requests, operational requests; clients can

encode requests with XML tags and generating an XML markup language request;

col 5, ll 45-51: router clients encode configuration requests and operational requests

with extensible markup language such as XML).

And, Swedor discloses:

generating, by the client, an XML request based on parameters of the request

from the client application; (Swedor col 9, l 57 - col 10, l 3: client computer encodes

the request by constructing an XML encoded document corresponding to the

request)

It would have been obvious to one of ordinary skill in the art to modify Shafer to

generate an XML request from a non-XML request as taught by Swedor. One of

ordinary skill in the art would have been motivated to employ the teachings of

Swedor in order to more efficiently access, configure and control a network device

using documents written in a markup language such as the Extensible Markup

Language (XML). (Swedor col. 1, lines 56-59: " ... *The present invention relates to*

*an apparatus and method for more efficiently accessing, configuring and controlling*

*a network device using documents written in a markup language such as the*

*Extensible Markup Language (XML). ... ")*

Shafer does not explicitly disclose that the client application is not XML-aware and the parameters of the request are expressed in name/value pairs. However, Pecina discloses <u>wherein the client application is not XML-aware, and</u> <u>wherein parameters</u> <u>of the request are expressed in name/value pairs.</u> (Pecina Figure 3I: name/value pairs; col 8, ll 62-67: network management systems used to configure and manage devices; col 4, ll 8-12; col 18, l 62 - col 19, l 9: table based model (not XML aware): a table within a first configuration database; NMS client informs server of device to configure; connects to network device and reads data/table structure for configuration information; col 13, ll 37-40: define an entity, attributes for the object and the object's relationship with other objects)

Specification discloses that the client can be XML aware and the client can be not XML aware. (Specification paragraph [0047]) Shafer discloses XML aware clients and Pecina discloses not XML aware clients and a table based model.

Shafer discloses committed and uncommitted requests. Shafer does not explicitly disclose a separate request to commit changes. However, Pecina discloses wherein a request to commit changes. (Pecina col 44, ll 59-67: to maintain changes, request that configuration changes made prior to upgrade commitment be copied to persistent memory; user may choose to manually commit (a request) the upgrade at his leisure) Pecina discloses a separate request to commit changes and the ability to copy configuration changes to storage within implementation (before manual

commit operation)

It would have been obvious to one of ordinary skill in the art to modify Shafer-Swedor for a client application that is not XML-aware, and parameters of a request are expressed in name/value pairs, and a request to commit change as taught by Pecina.  One of ordinary skill in the art would have been motivated to employ the teachings of Pecina in order to provide a method for upgrading embedded configuration databases while a network device is operating with minimal disruption to the operation of the network device.  (Pecina col 3, ll 21-24: " *... The present invention provides a method for upgrading embedded configuration databases while a network device is operating and with minimal disruption to network device operation.  ...* ")


**Regarding Claims 2, 7, 12**, Shafer discloses the method, machine-readable storage medium, apparatus as recited in Claim 1, wherein the step of

parsing the XML request to identify one or more XML elements contained in the XML request includes identifying one or more XML tags contained in the XML request (Shafer col 2, ll 21-23; col 2, ll 59-65: parse XML request, utilize XML tags) and the step of

generating the one or more data requests based upon the one or more XML elements contained in the XML request includes generating the one or more data requests based upon the one or more XML tags contained in the XML request. (Shafer col 2, ll 15-20: generate based on XML tags)

**Regarding Claims 3, 13**, Shafer discloses the method, apparatus as recited in Claim 1, further comprising the machine implemented step of generating an XML response based upon processing the one or more data requests against the management data maintained in the database by the router. (Shafer col 1, ll 49-55; col 3, ll 58-66: response replies received in XML format)

**Regarding Claims 4, 9, 14, 19**, Shafer discloses a computer implemented method, machine-readable storage medium, apparatus for processing XML requests on a router, the method comprising the machine executed steps of:

receiving, at a client from a client application, a request that conforms to a table-based data model to perform an operation on management data maintained by the router; (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests or non-XML requests; clients can encode requests with XML tags; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, machine readable media)

receiving, at the router from the client, the XML request to perform the operation on

the management data maintained in a database by the router; (Shafer col 2, ll 21-28; col 2, line 30-34: XML request, management information in database)

parsing the XML request to identify one or more XML tags contained in the XML request; (Shafer col 2, ll 15-20; col 2, ll 21-23: parse XML message)

identifying one or more management data items in the management data that are associated with the one or more XML tags; (Shafer col 2, ll 15-20: identify

information associated with XML tags)

generating one or more operations to be performed on the one or more management data items, wherein a first operation includes receiving updated management data from the client, and wherein a second operation includes implementing the updated management data on the router in response to changes to the management data on the router; (Shafer col 2, ll 59-65: convert to device command; col 10, ll 29-34: uncommitted (unimplemented) changes processed, stored and are accessible; col 11, ll 35-37: configuration change command completion confirmation); col 2, ll 21-34; col 6, ll 24-27: software, implementation means, computer readable media)

processing the one or more operations against the one or more management data items maintained in the database; (Shafer col 2, ll 21-28; col 2, ll 30-34: process requested operation based on associated data in database) and

generating an XML response and sending the XML response to the client, wherein the XML response contains a confirmation that the first operation and the second operation occurred. (Shafer col 3, ll 58-66; col 2, ll 21-23: request processed, XML response generated; col 11, ll 35-37: configuration change command completion confirmation; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, computer readable media)

Shafer discloses a non-XML operation request. (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests; clients can encode requests with XML tags and generating an XML markup language request; col 5, ll 45-51: router clients

encode configuration requests and operational requests with extensible markup language such as XML).

And, Swedor discloses:

generating, by the client, an XML request based on the parameters of the request from the client application; (Swedor col 9, l 57 - col 10, l 3: client computer encodes the request by constructing an XML encoded document corresponding to the request)

It would have been obvious to one of ordinary skill in the art to modify Shafer to generate an XML request from a non-XML request as taught by Swedor. One of ordinary skill in the art would have been motivated to employ the teachings of Swedor in order to more efficiently access, configure and control a network device using documents written in a markup language such as the Extensible Markup Language (XML). (Swedor col. 1, lines 56-59)

Shafer does not explicitly disclose that the client application is not XML-aware and the parameters of the request are expressed in name/value pairs. However, Pecina discloses wherein the client application is not XML-aware, and wherein parameters of the request are expressed in name/value pairs. (Pecina Figure 3I: name/value pairs; col 8, ll 62-67: network management systems used to configure and manage devices; col 4, ll 8-12; col 18, l 62 - col 19, l 9: table based model (not XML aware): a table within a first configuration database; NMS client informs server of device to configure; connects to network device and reads data/table structure for configuration information; col 13, ll 37-40: define an entity, attributes for the object

and the object's relationship with other objects)

Specification discloses that the client can be XML aware and the client can be not

XML aware. (Specification paragraph [0047]) Shafer discloses XML aware clients

and Pecina discloses not XML aware clients and a table based model.

Shafer discloses committed and uncommitted requests. Shafer does not explicitly

disclose a separate request to commit changes. However, Pecina discloses wherein

a request to commit changes. (Pecina col 44, ll 59-67: to maintain changes, request

that configuration changes made prior to upgrade commitment be copied to

persistent memory; user may choose to manually (a request) commit the upgrade at

his leisure) Pecina discloses a separate request to commit changes and the ability

to copy configuration changes to storage within implementation (before manual

commit operation)

It would have been obvious to one of ordinary skill in the art to modify Shafer

for a request to commit change as taught by Pecina. One of ordinary skill in the art

would have been motivated to employ the teachings of Pecina in order to provide a

method for upgrading embedded configuration databases while a network device is

operating with minimal disruption to the operation of the network device. (Pecina

col 3, ll 21-24)

**Regarding Claims 5, 10, 15, 20**, Shafer discloses a method, machine-readable

medium, apparatus for generating schema data used by a router to process XML

requests, the method comprising the machine implemented steps of

receiving schema definition data that defines both a hierarchical data model used

by the router and an XML interface used by client to generate XML requests for the

router; (Shafer col 3, ll 20-29: schema definition information utilized for XML

request/response interface; col 2, ll 21-34; col 6, ll 24-27: software, implementation

means, machine readable media)

receiving, at a client from a client application, a non-XML request that conforms

to a table-based data model to perform an operation on management data

maintained by the router;  (Shafer col 2, ll 10-17: clients submit configuration

requests, operational requests or non-XML requests; clients can encode requests

with XML tags)

wherein the XML request comprises at least one of:

a request to perform one or more operations on management data

maintained in a database by the router, wherein a first operation includes

receiving updated management data from the client, and wherein a second

operation includes implementing the updated management data on the router;

(Shafer col 10, ll 29-34: uncommitted (unimplemented) changes processed,

stored and are accessible; col 2, ll 21-34; col 6, ll 24-27: software,

implementation means, computer readable media) and

a data request, wherein the data request comprises a request for a

confirmation that updated management data has been implemented by the router

in response to changes to management data on the router; (Shafer col 11, ll 35-

37: configuration change command completion confirmation; col 2, ll 21-34; col 6,

ll 24-27: software, implementation means, computer readable media)

processing the schema definition data to generate processed schema definition

data; (Shafer col 3, ll 41-44: process data utilizing schema information) and

storing the processed schema definition data on the router. (Shafer col 3, ll 25-

29; col 8, ll 30-32: router database, configuration information storage)

Shafer discloses a non-XML operation request (Shafer col 2, ll 10-17: clients submit

configuration requests, operational requests; clients can encode requests with XML

tags and generating an XML markup language request; col 5, ll 45-51: router clients

encode configuration requests and operational requests with extensible markup

language such as XML).

And, Swedor discloses:

generating an XML request from the non-XML request,  (Swedor col 9, l 57 - col

10, l 3: client computer encodes the request by constructing an XML encoded

document corresponding to the request)

It would have been obvious to one of ordinary skill in the art to modify Shafer to

generate an XML request from a non-XML request as taught by Swedor.   One of

ordinary skill in the art would have been motivated to employ the teachings of

Swedor in order to more efficiently access, configure and control a network device

using documents written in a markup language such as the Extensible Markup

Language (XML).   (Swedor col. 1, lines 56-59)

Shafer does not explicitly disclose a separate request to commit changes.  However,

Pecina discloses wherein a request to commit changes.  (Pecina col 44, ll 59-67: to

maintain changes, request that configuration changes made prior to upgrade

commitment be copied to persistent memory; user may choose to manually (a

request) commit the upgrade at his leisure)  Pecina discloses a separate request to

commit changes and the ability to copy configuration changes to storage within

implementation (before manual commit operation)

It would have been obvious to one of ordinary skill in the art to modify Shafer

for a request to commit change as taught by Pecina.   One of ordinary skill in the art

would have been motivated to employ the teachings of Pecina in order to provide a

method for upgrading embedded configuration databases while a network device is

operating with minimal disruption to the operation of the network device.   (Pecina

col 3, ll 21-24)


**Regarding Claim 8**, Shafer discloses the machine readable storage medium as recited

in Claim 6, further comprising one or more additional instructions which, when executed

by the one or more processors, cause the one or more processors to perform the step

of generating an XML response based upon processing the one or more data requests

against the management data maintained in the database by the router. (Shafer col 6, ll

24-27: processor(s); col 3, ll 58-66: request processed, XML response generated)


**Regarding Claim 17**, Shafer discloses the apparatus as recited in Claim 16, further

comprising means for identifying one or more XML tags contained in the XML request

and means for generating the one or more data requests based upon the one or more

XML tags contained in the XML request. (Shafer col 2, ll 15-20: XML tags utilized to

parse request and generate commands)


**Regarding Claim 18**, Shafer discloses the apparatus as recited in Claim 16, further

comprising means for generating an XML response based upon processing the one or

more data requests against the management data maintained in the database by the

router. (Shafer col 3, ll 41-44; col 3, ll 58-66: XML response generated)


### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.  Accordingly, **THIS ACTION IS MADE FINAL**.  See MPEP

§ 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.  In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung Hye Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9:30 am - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia L. Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kyung Hye Shin
Examiner
Art Unit 2443

KHS
October 7, 2008

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2454